General

Guideline Title

American Cancer Society head and neck cancer survivorship care guideline.

Bibliographic Source(s)

Cohen EEW, LaMonte SJ, Erb NL, Beckman KL, Sadeghi N, Hutcheson KA, Stubblefield MD, Abbott DM, Fisher PS, Stein KD, Lyman GH, Pratt-Chapman ML. American Cancer Society head and neck cancer survivorship care guideline. CA Cancer J Clin. 2016 May;66(3):203-39. [184 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Recommendations

Major Recommendations

Definitions for the level of evidence (LOE) (I-2A) are provided at the end of the "Major Recommendations" field.

American Cancer Society (ACS) Recommendations for Head and Neck Cancer (HNC) Survivorship Care

Surveillance for HNC Recurrence

History and Physical

Recommendation 1.1. It is recommended that primary care clinicians: a) should individualize clinical follow-up care provided to HNC survivors based on age, specific diagnosis, and treatment protocol as recommended by the treating oncology team (LOE = 2A); b) should conduct a detailed cancer-related history and physical examination every 1 to 3 months for the first year after primary treatment, every 2 to 6 months in the second year, every 4 to 8 months in years 3 to 5, and annually after 5 years (LOE = 2A) (Pfister et al., 2015); c) should confirm continued follow-up with otolaryngologist or HNC specialist for head and neck (HN)-focused examination (LOE = 2A).

Surveillance Education

Recommendation 1.2. It is recommended that primary care clinicians: a) should educate and counsel all HNC survivors about the signs and symptoms of local recurrence. (LOE = 0); b) should refer HNC survivors to an HNC specialist if signs and symptoms of local recurrence are present (LOE = 0).

Screening and Early Detection of Second Primary Cancers (SPCs)

Recommendation 2.1. It is recommended that primary care clinicians: a) should screen HNC survivors for other cancers as they would for patients in the general population by adhering to the ACS Early Detection Recommendations (cancer.org/professionals ; LOE = 0); b) should screen HNC survivors for lung cancer according to American Society of Clinical Oncology (ASCO) or National Comprehensive Cancer Network (NCCN) (Wood et al., 2016) recommendations for annual lung cancer screening with low-dose computed tomography (LDCT) for high-risk patients based on smoking history (LOE = 2A); c) should screen HNC survivors for another HN and esophageal cancer as they would for patients of increased risk (LOE = 0, IIA).

Assessment and Management of Physical and Psychosocial Long-term and Late Effects of HNC and Its Treatment

Recommendation 3.1. It is recommended that primary care clinicians should assess for long-term and late effects of HNC and its treatment at each follow-up visit (LOE = 0).

Spinal Accessory Nerve (SAN) Palsy

Recommendation 3.2. It is recommended that primary care clinicians should refer HNC survivors with spinal accessory nerve (SAN) palsy occurring post-radical neck dissection to a rehabilitation specialist to improve range of motion and ability to perform daily tasks (LOE = IA).

Cervical Dystonia/Muscle Spasms/Neuropathies

Recommendation 3.3. It is recommended that primary care clinicians: a) should assess HNC survivors for cervical dystonia, which is characterized by painful dystonic spasms of the cervical muscles and can be caused by neck dissection, radiation, or both (LOE = 0); b) should refer HNC survivors to a rehabilitation specialist for comprehensive neuromusculoskeletal management if cervical dystonia or neuropathy is found (LOE = 0); c) should prescribe nerve-stabilizing agents, such as pregabalin, gabapentin, and duloxetine, or refer to a specialist for botulinum toxin type A injections into the affected muscles for pain management and spasm control as indicated (LOE = 0, IIA).

Shoulder Dysfunction

Recommendation 3.4. It is recommended that primary care clinicians: a) should conduct baseline assessment of HNC survivor shoulder function posttreatment for strength, range of motion, and impingement signs, and continue to assess as follow-up for ongoing complications or worsening condition (LOE = IIA); b) should refer HNC survivors to a rehabilitation specialist for improvement to pain, disability, and range of motion where shoulder morbidity exists (LOE = IA).

Trismus

Recommendation 3.5. It is recommended that primary care clinicians: a) should refer HNC survivors to rehabilitation specialists and dental professionals to prevent trismus and to treat trismus as soon as it is diagnosed (LOE = 0); b) should prescribe nerve-stabilizing agents to combat pain and spasms, which may also ease physical therapy and stretching devices (LOE = IIA).

Dysphagia/Aspiration/Stricture

Recommendation 3.6. It is recommended that primary care clinicians: a) should refer HNC survivors presenting with complaints of dysphagia, postprandial cough, unexplained weight loss, and/or pneumonia to an experienced speech-language pathologist for instrumental evaluation of swallowing function to assess and manage dysphagia and possible aspiration (LOE = IIA); b) should recognize potential for psychosocial barriers to swallowing recovery and refer HNC survivors to an appropriate clinician if barriers are present (LOE = IIA); c) should refer to a speech-language pathologist for videofluoroscopy as the first-line test for HNC survivors with suspected stricture due to the high degree of coexisting physiologic dysphagia (LOE = IIA); d) should refer HNC survivors with stricture to a gastroenterologist or HN surgeon for esophageal dilation (LOE = IIA).

Gastroesophageal Reflux Disease (GERD)

Recommendation 3.7. It is recommended that primary care clinicians: a) should monitor HNC survivors for developing or worsening GERD, as it prevents healing of irradiated tissues and is associated with increased risk of HNC recurrence or SPCs (LOE = IIA); b) should counsel HNC survivors on an increased risk of esophageal cancer and the associated symptoms (LOE = IIA); c) should recommend proton pump inhibitors (PPIs) or antacids, sleeping with a wedge pillow or 3-inch blocks under the head of the bed, not eating or drinking fluids for 3 hours before bedtime, tobacco cessation, and avoidance of alcohol (LOE = IIA); d) should refer HNC survivors to a gastroenterologist if symptoms are not relieved by treatments listed in 3.7c (LOE = IIA).

Lymphedema

Recommendation 3.8. It is recommended that primary care clinicians: a) should assess HNC survivors for lymphedema using the National Cancer

Institute Common Toxicity Criteria for Adverse Events (NCI CTCAE) v.4.03, or referral for endoscopic evaluation of mucosal edema of the oropharynx and larynx, tape measurements, sonography, or external photographs (LOE = IIA); b) should refer HNC survivors to a rehabilitation specialist for treatment consisting of manual lymphatic drainage (MLD) and, if tolerated, compressive bandaging (LOE = IIA).

Fatigue

Recommendation 3.9. It is recommended that primary care clinicians: a) should assess for fatigue and treat any causative factors for fatigue, including anemia, thyroid dysfunction, and cardiac dysfunction (LOE = 0); b) should offer treatment or referral for factors that may impact fatigue (e.g., mood disorders, sleep disturbance, pain, etc.) for those who do not have an otherwise identifiable cause of fatigue (LOE = I); c) should counsel HNC survivors to engage in regular physical activity and refer for cognitive behavioral therapy (CBT) as appropriate (LOE = I).

Altered or Loss of Taste

Recommendation 3.10. It is recommended that primary care clinicians should refer HNC survivors with altered or loss of taste to a registered dietitian for dietary counseling and assistance in additional seasoning of food, avoiding unpleasant food, and expanding dietary options (LOE = IIA).

Hearing Loss, Vertigo, Vestibular Neuropathy

Recommendation 3.11. It is recommended that primary care clinicians should refer HNC survivors to appropriate specialists (i.e., audiologists) for loss of hearing, vertigo, or vestibular neuropathy related to treatment (LOE = IIA).

Sleep Disturbance/Sleep Apnea

Recommendation 3.12. It is recommended that primary care clinicians: a) should screen HNC survivors for sleep disturbance by asking HNC survivors and partners about snoring and symptoms of sleep apnea (LOE = 0); b) should refer HNC survivors to a sleep specialist for a sleep study (polysomnogram) if sleep apnea is suspected (LOE = 0); c) should manage sleep disturbance similar to patients in the general population (LOE = 0); d) should recommend nasal decongestants, nasal strips, and sleeping in the propped-up position to reduce snoring and mouth-breathing; room cool-mist humidifiers can aid sleep as well by keeping the airway moist (LOE = 0); e) should refer to a dental professional to test the fit of dentures to ensure proper fit and counsel HNC survivors to remove dentures at night to avoid irritation (LOE = 0).

Speech/Voice

Recommendation 3.13. It is recommended that primary care clinicians: a) should assess HNC survivors for speech disturbance (LOE = 0); b) should refer HNC survivors to an experienced speech-language pathologist if communication disorder exists (LOE = IA, IIA).

Hypothyroidism

Recommendation 3.14. It is recommended that primary care clinicians should evaluate HNC survivor thyroid function by measuring thyroid-stimulating hormone (TSH) every 6 to 12 months (LOE = III).

Oral and Dental Surveillance

Recommendation 3.15. It is recommended that primary care clinicians: a) should counsel HNC survivors to maintain close follow-up with the dental professional and reiterate that proper preventive care can help reduce caries and gingival disease (LOE = IA); b) should counsel HNC survivors to avoid tobacco, alcohol (including mouthwash containing alcohol), spicy or abrasive foods, extreme temperature liquids, sugar-containing chewing gum or sugary soft drinks, and acidic or citric liquids (LOE = 0); c) should refer HNC survivors to a dental professional specializing in the care of oncology patients (LOE = 0).

Caries

Recommendation 3.16. It is recommended that primary care clinicians: a) should counsel HNC survivors to seek regular professional dental care for routine examination and cleaning and immediate attention to any intraoral changes that may occur (LOE = 0); b) should counsel HNC survivors to minimize intake of sticky and/or sugar-containing food and drink to minimize risk of caries (LOE = 0); c) should counsel HNC survivors on dental prophylaxis, including brushing with remineralizing toothpaste, the use of dental floss, and fluoride use (prescription 1.1% sodium fluoride toothpaste as a dentifrice or in customized delivery trays; LOE = IA, 0).

Periodontitis

Recommendation 3.17. It is recommended that primary care clinicians: a) should refer HNC survivors to a dentist or periodontist for thorough evaluation (LOE = 0); b) should counsel HNC survivors to seek regular treatment from and follow recommendations of a qualified dental

professional and reinforce that proper examination of the gingival attachment is a normal part of ongoing dental care (LOE = 0).

Xerostomia

Recommendation 3.18. It is recommended that primary care clinicians: a) should encourage use of alcohol-free rinses if an HNC survivor requires mouth rinses (LOE = 0); b) should counsel HNC survivors to consume a low-sucrose diet and to avoid caffeine, spicy and highly acidic foods, and tobacco (LOE = 0); c) should encourage HNC survivors to avoid dehydration by drinking fluoridated tap water, but explain that consumption of water will not eliminate xerostomia (LOE = 0).

Osteonecrosis

Recommendation 3.19. It is recommended that primary care clinicians: a) should monitor HNC survivors for swelling of the jaw and/or jaw pain, indicating possible osteonecrosis (LOE = 0); b) should administer conservative treatment protocols, such as broad-spectrum antibiotics and daily saline or aqueous chlorhexidine gluconate irrigations, for early stage lesions (LOE = 0); c) should refer to an HN surgeon for consideration of hyperbaric oxygen therapy for early and intermediate lesions, for debridement of necrotic bone while undergoing conservative management, or for external mandible bony exposure through the skin (LOE = 0).

Oral Infections/Candidiasis

Recommendation 3.20. It is recommended that primary care clinicians: a) should refer HNC survivors to a qualified dental professional for treatment and management of complicated oral conditions and infections (LOE = 0); b) should consider systemic fluconazole and/or localized therapy of clotrimazole troches to treat oral fungal infections (LOE = 0).

Body and Self-image

Recommendation 3.21. It is recommended that primary care clinicians: a) should assess HNC survivors for body and self-image concerns (LOE = IIA); b) should refer for psychosocial care as indicated (LOE = IA).

Distress/Depression/Anxiety

Recommendation 3.22. It is recommended that primary care clinicians: a) should assess HNC survivors for distress/depression and/or anxiety periodically (3 months posttreatment and at least annually), ideally using a validated screening tool (LOE = I); b) should offer in-office counseling and/or pharmacotherapy and/or refer to appropriate psycho-oncology and mental health resources as clinically indicated if signs of distress, depression, or anxiety are present (LOE = I); c) should refer HNC survivors to mental health specialists for specific quality of life (QoL) concerns, such as to social workers for issues like financial and employment challenges or to addiction specialists for substance abuse (LOE = I).

Health Promotion

Information

Recommendation 4.1. It is recommended that primary care clinicians: a) should assess the information needs of the HNC survivor related to HNC and its treatment, side effects, other health concerns, and available support services (LOE = 0); b) should provide or refer HNC survivors to appropriate resources to meet identified needs (LOE = 0).

Healthy Weight

Recommendation 4.2. It is recommended that primary care clinicians: a) should counsel HNC survivors to achieve and maintain a healthy weight (LOE = III); b) should counsel HNC survivors on nutrition strategies to maintain a healthy weight for those at risk for cachexia (LOE = 0); c) should counsel HNC survivors if overweight or obese to limit consumption of high-calorie foods and beverages and increase physical activity to promote and maintain weight loss (LOE = IA).

Physical Activity

Recommendation 4.3. It is recommended that primary care clinicians should counsel HNC survivors to engage in regular physical activity consistent with the ACS guideline, and specifically: a) should avoid inactivity and return to normal daily activities as soon as possible after diagnosis (LOE = III); b) should aim for at least 150 minutes of moderate or 75 minutes of vigorous aerobic exercise per week (LOE = I, IA); (c) should include strength training exercises at least 2 days/week (LOE = IA).

Nutrition

Recommendation 4.4. It is recommended that primary care clinicians: a) should counsel HNC survivors to achieve a dietary pattern that is high in

vegetables, fruits, and whole grains, low in saturated fats, sufficient in dietary fiber, and avoids alcohol consumption (LOE = IA, III); b) should refer HNC survivors with nutrition-related challenges (e.g., swallowing problems that impact nutrient intake) to a registered dietician or other specialist (LOE = 0).

Tobacco Cessation

Recommendation 4.5. It is recommended that primary care clinicians should counsel HNC survivors to avoid tobacco products and offer or refer patients to cessation counseling and resources (LOE = I).

Personal Oral Health

Recommendation 4.6. It is recommended that primary care clinicians: a) should counsel HNC survivors to maintain regular dental care, including frequent visits to dental professionals, early interventions for dental complications, and meticulous oral hygiene (LOE = 0); b) should test fit dentures to ensure proper fit and counsel HNC survivors to remove them at night to avoid irritation (LOE = 0); c) should counsel HNC survivors that nasal strips can reduce snoring and mouth-breathing and that room humidifiers and nasal saline sprays can aid sleep as well (LOE = 0); d) should train HNC survivors to do at-home HN self-evaluations and be instructed to report any suspicions or concerns immediately (LOE = 0).

Care Coordination and Practice Implications

Survivorship Care Plan

Recommendation 5.1. It is recommended that primary care clinicians should consult with the oncology team and obtain a treatment summary and survivorship care plan (LOE = 0, III).

Communication with Other Providers

Recommendation 5.2. It is recommended that primary care clinicians: a) should maintain communication with the oncology team throughout diagnosis, treatment, and posttreatment care to ensure care is evidence-based and well coordinated (LOE = 0); b) should refer HNC survivors to a dentist to provide diagnosis and treatment of dental caries, periodontal disease, and other intraoral conditions, including mucositis and oral infections, and communicate with the dentist on follow-up recommendations and patient education (LOE = 0); c) should maintain communication with specialists referred to for management of comorbidities, symptoms, and long-term and late effects (LOE = 0).

Inclusion of Caregivers

Recommendation 5.3. It is recommended that primary care clinicians should encourage the inclusion of caregivers, spouses, or partners in usual HNC survivorship care and support (LOE = 0).

More Resources

More resources to support guideline implementation are available at cancer.org/professionals.

Definitions

Level of Evidence

Level of Evidence	Criteria
I	Meta-analyses of RCTs
IA	RCT of HNC survivors
IB	RCT based on cancer survivors across multiple cancer sites
IC	RCT not based on cancer survivors but on general population experiencing a specific long-term or late effect (e.g., managing fatigue, etc.)
IIA	Non-RCTs based on HNC survivors
IIB	Non-RCTs based on cancer survivors across multiple sites
IIC	Non-RCTs not based on cancer survivors but on general population experiencing a specific long-term or late effect (e.g., managing fatigue, etc.)
III	Case-control study or prospective cohort study

0	Expert opinion, observational study (excluding case-control and prospective cohort studies), clinical practice, literature review, or pilot study
2A	NCCN Category 2A: Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate
HNC indicates head and neck cancer; NCCN, National Comprehensive Cancer Network; RCTs, randomized controlled trials.	

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Head and neck cancer (HNC)

Note: For the purposes of this guideline, HNC includes the following cancer sites: oral cavity, larynx, tongue, lip, and pharynx, although many of the principles apply to cancers of the salivary glands, nasal and paranasal sinuses, and nasopharynx. Cancers of the brain, thyroid, and esophagus were not included because these cancers are very different in their symptoms and treatment than the previously listed cancers of the head and neck.

Guideline Category

Counseling

Management

Rehabilitation

Risk Assessment

Screening

Clinical Specialty

Dentistry

Family Practice

Internal Medicine

Nursing

Nutrition

Oncology

Otolaryngology

Physical Medicine and Rehabilitation

Psychiatry

Psychology

Sleep Medicine

Speech-Language Pathology

Intended Users

Allied Health Personnel

Dentists

Dietitians

Health Care Providers

Nurses

Occupational Therapists

Physical Therapists

Physicians

Psychologists/Non-physician Behavioral Health Clinicians

Social Workers

Speech-Language Pathologists

Guideline Objective(s)

To assist primary care clinicians and other health practitioners with the care of head and neck cancer survivors, including monitoring for recurrence, screening for second primary cancers, assessment and management of long-term and late effects, health promotion, and care coordination

Target Population

Adult posttreatment head and neck cancer (HNC) survivors

Note: For the purposes of this guideline, HNC includes the following cancer cites: oral cavity, larynx, tongue, lip, and pharynx, although may of the principles apply to cancers of the salivary glands, nasal and paranasal sinuses, and nasopharynx. Cancers of the brain, thyroid, and esophagus were not included because these cancers are very different in their symptoms and treatment than the previously listed cancers of the head and neck.

Interventions and Practices Considered

1. Surveillance for head and neck cancer (HNC) recurrence
    - History and physical
    - Surveillance education
2. Screening and early detection of second primary cancers (SPCs)
3. Assessment and management of physical and psychological long-term and late effects of HNC and its treatment
    - Assessment of musculoskeletal and neuromuscular effects
    - Assessment of dysphagia/aspiration/stricture
    - Monitoring for and treatment of gastroesophageal reflux disease (GERD)
    - Assessment and referral for lymphedema
    - Assessment and treatment for fatigue
    - Referral for altered or loss of taste, hearing loss, vertigo, vestibular neuropathies
    - Screening for and management of sleep disturbance/sleep apnea
    - Assessment and referral for speech disturbance
    - Evaluation for hypothyroidism
    - Oral and dental health surveillance and care
    - Assessment and referral for body/self-image concerns and distress/depression/anxiety
4. Health promotion in patients (healthy weight, physical activity, nutrition, tobacco cessation, personal oral health)
    - Assessment of information needs
    - Patient counseling

    - Referral to specialists
5. Care coordination and practice implications
    - Survivorship care plan
    - Communication with other providers
    - Inclusion of caregivers

Major Outcomes Considered

- Head and neck cancer (HNC) recurrence rate
- Survival rate
- Early detection of second primary cancers (SPCs)
- Physical and psychological status (long-term and late effects of HNC treatment)
- Quality of life (QoL)

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Literature Review

The literature review began with an environmental scan of existing guidelines and guidance developed by other organizations (e.g., the National Comprehensive Cancer Network® [NCCN®], ASCO), specific medical centers (e.g., The University of Texas MD Anderson Clinical Tools and Resources Head and Neck Cancer Survivorship algorithm, US Preventive Services Task Force), and those available from other countries (e.g., Australian Cancer Survivorship Centre).

Literature Search Strategy

A systematic review of the literature was conducted using PubMed for 2004 through April 2015. Studies on childhood cancers, qualitative studies, and non-English publications were excluded. Also excluded were studies that consisted of entirely non-North American populations, because head and neck cancer (HNC) prevalence is higher in some countries due to lifestyle causes and differing etiology. Search terms included: cancer survivor AND review OR meta-analysis OR systematic review OR guidelines; guidance AND head and neck cancer OR head and neck cancer survivor; head and neck cancer patient post-treatment AND symptom management OR late effects OR long-term effects OR psychosocial care OR palliative care OR health promotion OR surveillance OR screening for new cancers OR self-management OR guidelines OR guidance OR follow up OR follow-up OR side effects OR (chemotherapy AND side effects) OR (radiation AND side effects), OR surgery OR treatment complications OR genetic counseling and testing OR survivor or patient interventions OR provider interventions OR provider education OR barriers. Additional search attempts included head and neck cancer OR head and neck cancer survivor OR head and neck cancer patient post-treatment AND (symptom-specific terms, such as swallowing, body image, neck dissection, etc.).

The highest priority was given to articles that met the following criteria: peer-reviewed publication in English since 2004 unless a seminal article published before that date still carried the most weight, including randomized controlled trials (RCTs), prospective cohort studies, and population-based case-control studies; studies of more than 50 cancer cases analyzed and with high-quality assessment of covariates and analytic methods; and analyses controlled for important confounders (e.g., preexisting comorbid conditions).

Number of Source Documents

Of the total number of 2,081 articles identified by the search, 349 met inclusion criteria; and, after full text review, 184 were included as the evidence base.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Level of Evidence

Level of Evidence	Criteria
I	Meta-analyses of RCTs
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III	Case-control study or prospective cohort study
0	Expert opinion, observational study (excluding case-control and prospective cohort studies), clinical practice, literature review, or pilot study
2A	NCCN Category 2A: Based upon lower-level evidence, there is uniform NCCN consensus that the intervention is appropriate
HNC indicates head and neck cancer; NCCN, National Comprehensive Cancer Network; RCTs, randomized controlled trials.	

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Workgroup members were asked to consider the specific level of evidence (LOE) criteria (see the "Rating Scheme for the Strength of the Evidence" field) along with consistency across studies and study designs; dose-response when presenting treatment impacts; race/ethnicity differences; and second primary cancers (SPCs) for which survivors are at high risk because of treatment and behavioral considerations.

The guideline summarizes literature with the highest level of evidence. A comprehensive list of evidence is available in the Supporting Information Table (see the "Availability of Companion Documents" field).

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Methods

Methods used to develop this guideline were influenced by the American Cancer Society (ACS) cancer screening and survivorship care guidelines.

Where appropriate, this guideline builds upon the recently published American Society of Clinical Oncology (ASCO) symptom-based guidelines for adult cancer survivors. ASCO has symptom-based guidelines specific to fatigue, chemotherapy-induced peripheral neuropathy, and anxiety and depressive symptoms.

Panel Formation

A multidisciplinary expert workgroup was formed and tasked with drafting the ACS Head and Neck Cancer Survivorship Care Guideline. Workgroup members had expertise in primary care, dentistry, surgical oncology, medical oncology, radiation oncology, clinical psychology, speech language pathology, physical medicine and rehabilitation, and nursing. In addition, a head and neck cancer (HNC) cancer survivor was included to provide a patient perspective.

Results

Recommendations provided in this guideline are based on current evidence in the literature and expert consensus opinion. Clinical interpretation of the included evidence follows each recommendation, along with a rating of the level of evidence (LOE) supporting each recommendation. Recommendations provided in this guideline are based on current evidence in the literature, but most evidence is not sufficient to warrant a strong, evidence-based recommendation. Rather, recommendations should be largely viewed as possible management strategies given the current evidence base and the logistical challenges of comprehensively adhering to these recommendations.

Rating Scheme for the Strength of the Recommendations

Not applicable

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Internal Peer Review

Description of Method of Guideline Validation

External Review

After finalization by the workgroup, the guideline was sent to additional internal experts and external experts for review and comment before submission for publication. Comments were reviewed by the expert panel and integrated into the final article before approval by the Clinical Practice Guideline Committee.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Pfister D, et al. NCCN clinical practice guidelines in oncology (NCCN guidelines VR) for head and neck cancers. V.1.2015. Fort Washington (PA): National Comprehensive Cancer Network (NCCN); 2015 [accessed 2016 Jan 27].

Wood D, et al. NCCN clinical practice guidelines in oncology (NCCN guidelines VR) for lung cancer screening. V.1.2016. Fort Washington (PA): National Comprehensive Cancer Network (NCCN); 2016 [accessed 2016 Jan 27].

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Less than 2% of eligible articles were rated as level I evidence, less than 4% were rated as level IA evidence, less than 1% were rated as level IC evidence, and less than 3% were rated as level IIA evidence. The majority of evidence was rated as level III (28%) and level 0 (64%). Recommendations provided in this guideline are based on current evidence in the literature and expert consensus opinion.

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Appropriate management of head and neck cancer (HNC) survivors to provide high-quality, comprehensive, coordinated clinical follow-up that addresses each patient's individual risk profile and preferences of care to address physical and psychosocial effects from HNC and its treatment

Refer to the "Clinical Interpretation" sections of the original guideline document for a detailed discussion of the potential benefits of each recommendation.

Potential Harms

- Potential harms from low-dose computed tomography (LDCT) screening, such as death related to interventions in benign nodules, or deaths related to follow-up procedures, such as bronchoscopy and needle biopsy within 2 months of the screening (3.4% per 10,000 screened by LDCT and 2.2 per 10,000 screened by chest x-ray [CXR])
- Primary care clinicians should be aware that oral antibiotics for unrelated, systemic infections increase the likelihood of fungal overgrowth and infection in the oral cavity.
- Compression garments used for treatment of lymphedema can be poorly tolerated, and customization may be required for routine use.

Contraindications

Contraindications

Regular administration of a high-sugar solution in a xerostomic mouth is contraindicated because of the risk of increased dental caries.

Qualifying Statements

Qualifying Statements

Guideline Disclaimer

The clinical practice guideline published herein is provided by the American Cancer Society (ACS) to assist providers in clinical decision making. This information should not be relied upon as being complete or accurate, nor should it be considered as inclusive of all proper treatments or methods of care or as a statement of the standard of care. With the rapid development of scientific knowledge, new evidence may emerge between the time information is developed and when it is published or read. The information is not continually updated and may not reflect the most recent evidence. The information addresses only the topics specifically identified therein and is not applicable to other interventions, diseases, or stages of diseases.

This information does not mandate any particular course of medical care. Furthermore, the information is not intended to substitute for the independent professional judgment of the treating provider, as the information does not account for individual variation among patients. The use of words like "must," "must not," "should," and "should not" indicates that a course of action is recommended or not recommended for either most or many patients, but there is latitude for the treating physician to select other courses of action in individual cases. In all cases, the selected course of

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Limitations

A significant limitation of this guideline is the limited evidence base to provide clear and specific recommendations for the prevention and management of long-term and late effects of cancer survivors. There are few prospective randomized controlled trials (RCTs) testing interventions among head and neck cancer (HNC) survivors. The majority of the citations characterizing the risk and magnitude of risk of late effects and management recommendations rely predominantly on case-control studies with fewer than 500 participants and reviews that combine studies with various outcome measures. There were several cohort studies that used population-based data to estimate the risk of late effects.

Refer to the "Limitations" section of the original guideline document for additional information.

Implementation of the Guideline

Description of Implementation Strategy

American Cancer Society (ACS) guidelines are developed for implementation across health settings. Barriers to implementation include the need to increase awareness of the guideline recommendations among front-line practitioners and survivors of cancer and caregivers and also to provide adequate services in the face of limited resources. This guideline will be distributed widely through the ACS health systems network. The ACS guidelines are posted on the ACS Web site at cancer.org/professionals.

More Resources

In addition to this guideline, tools and resources are available to assist primary care clinicians in implementing these recommendations. *CA* offers a Patient Page (onlinelibrary.wiley.com/enhanced/doi/10.3322/caac.21344/) to help patients understand how to use this guideline to talk to the primary care clinician about surveillance and screening, symptom management, healthy behaviors, and care coordination. *CA* also offers free continuing medical education and free continuing nursing education for this article at acsjournals.com/ce as an additional resource for physicians and nurses. The Survivorship Center also offers The George Washington University Cancer Institute's Cancer Survivorship E-Learning Series for Primary Care Providers (The E-Learning Series), a free, innovative, online, continuing-education program to educate primary care clinicians about how to better understand and care for survivors in the primary care setting. Continuing education credits are available at no cost to physicians, nurse practitioners, nurses, and physician assistants for each 1-hour module. For these resources and more to support guideline implementation, visit cancer.org/professionals.

Implementation Tools

Patient Resources

Resources

Staff Training/Competency Material

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

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American Cancer Society - Disease Specific Society

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Guideline Committee

Head and Neck Cancer Survivorship Care Expert Workgroup

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Financial Disclosures/Conflicts of Interest

Guideline and Conflicts of Interest

The expert panel was assembled in accordance with the American Cancer Society (ACS) Conflict of Interest Procedures. Members of the panel completed the ACS Guidelines Development Participant Disclosure Form and the International Committee of Medical Journal Editors Form for Disclosure of Potential Conflicts of Interest, which requires disclosure of financial and other interests that are relevant to the subject matter of the guideline, including relationships with commercial entities that are reasonably likely to experience direct regulatory or commercial impact as a result of promulgation of the guideline. Categories for disclosure include employment; leadership; stock or other ownership; honoraria, consulting, or advisory role; speaker's bureau; research funding; patents, royalties, other intellectual property; expert testimony; travel, accommodations, expenses; and other relationships. In accordance with the procedures, the majority of the members of the panel did not disclose any such relationships.

Disclosures

Nicole L. Erb, Kerry L. Beckman, and Mandi L. Pratt Chapman report cooperative agreement funding from the American Cancer Society/Centers for Disease Control and Prevention for the National Cancer Survivorship Resource Center project. Ezra E. W. Cohen reports consulting fees from AstraZeneca, Bayer, Celgene, Eisai, Merck, and Pfizer outside the submitted work. Katherine A. Hutcheson reports grant support from the MD Anderson Institutional Grant Program, National Cancer Institute (R03 CA188162-01A1), the National Institute of Craniofacial and Dental Research (R56DE025248-01), and Cancer Research United Kingdom (C36244/A17161), outside the submitted work. Dennis M. Abbott reports personal fees, including salary, from Dental Oncology Professionals; honoraria for speaking/lectures from Henry Schein Dental, Seattle Study Clubs, PerioSciences, LLC, and Dental EZ/Star Dental; and a nonpaid position on the Advisory Board of the American Academy of Dental Oncology outside the submitted work. Mandi L. Pratt-Chapman reports research grants from Genentech; consulting fees from Pfizer; and event sponsorship support from Amgen Oncology, Takeda Oncology, and Genentech outside the submitted work. Samuel J. LaMonte, Nader Sadeghi, Michael D. Stubblefield, Penelope S. Fisher, Kevin D. Stein, and Gary H. Lyman report no conflicts of interest.

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the CA: A Cancer Journal for Clinicians Web site .

Availability of Companion Documents

Supporting information is available from the CA: A Cancer Journal for Clinicians Web site .

More resources to support guideline implementation are available at cancer.org/professionals .

An online continuing education activity related to this guideline is available at https://www.wileyhealthlearning.com/Activity/4153371/disclaimerspopup.aspx.

Patient Resources

The following is available:

- Head and neck cancer survivorship care guideline. Patient page. Available from the CA: A Cancer Journal for Clinicians Web site.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

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